



MORBIDITY AND MORTALITY WEEKLY REPORT

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Current Trends

Unintentional Poisoning Mortality – United States, 1980–1986

March 19–25, 1989, marks the 28th annual observance of National Poison Prevention Week (NPPW). NPPW is intended to alert the public to the problem of unintentional poisoning (the ingestion, injection, inhalation, or absorption of a chemical agent that results in unanticipated illness or death), the fifth leading cause of unintentional injury deaths in the United States. The traditional goal of NPPW is prevention of poisoning among children. Although childhood poisoning mortality has decreased in recent years, morbidity associated with poisoning in this age group remains a major public health problem. In 1987, 731,954 poisoning exposures among children <6 years of age were reported to the American Association of Poison Control Centers' National Data Collection System; 22 of these children died, and 107,844 others became ill (1). The number of exposures to household medicines and chemicals can be reduced by more widespread use of safety-packaged products by parents and other caretakers of children. The following report focuses on unintentional poisoning mortality among young adults, including poisonings from both the medical and nonmedical use of drugs.

Unintentional poisoning deaths in the United States were analyzed for 1980–1986 using final mortality data from CDC's National Center for Health Statistics (NCHS).^{*} Age-adjusted mortality rates were directly standardized to the 1980 U.S. population.

From 1980 through 1986, the mortality rate of unintentional poisonings in the United States increased from 1.9 to 2.3 deaths/100,000 population (Figure 1). This 7-year trend appears to be explained by a 49% increase in the rate of deaths from drug poisoning, including drugs used for both medical and nonmedical purposes. Mortality rates of unintentional poisoning by other solids and liquids and by gases and vapors decreased by 15% and 25%, respectively, during 1980–1986. In 1986, the

^{*}NCHS codes the underlying cause of death according to the International Classification of Diseases (ICD). The ICD Ninth Revision (ICD-9) has been in use since the beginning of 1979. NCHS uses the ICD-9 codes E850–E858 for unintentional drug poisoning deaths, such as overdoses, regardless of whether the drug was administered for medical reasons. NCHS codes other drug-related deaths as deaths due to drug dependence (ICD-9 code 304), nondependent drug abuse (305.2–305.9), suicide by drugs (E950.0–E950.5), and poisoning by drugs in which the intentions of the decedent are undetermined (E980.0–E980.5).

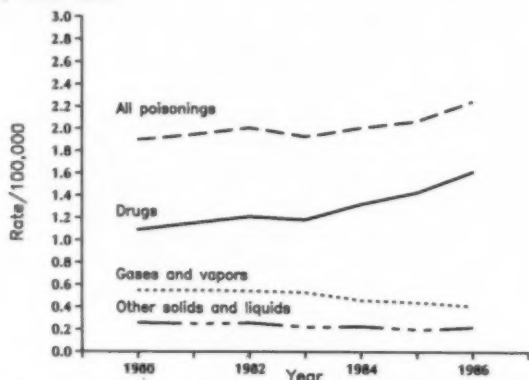
Unintentional Poisoning — Continued

most recent year for which NCHS mortality data are available, drug poisonings accounted for 1.6 deaths/100,000 persons and 73% of all unintentional poisoning deaths (Table 1).

In 1986, the leading causes of fatal unintentional drug poisonings were opiates and related narcotics and local anesthetics including cocaine (Table 2). Most of the fatal poisonings by other solids and liquids were due to alcohol ingestion (352 deaths). Exposure to motor vehicle exhaust (475 deaths) accounted for nearly half the deaths due to unintentional poisoning by gases and vapors.

The mortality rate of unintentional poisonings for males remained more than twice that for females during 1980–1986 (Table 3). The rates for blacks of both sexes were consistently higher than those for whites. In 1986, the rate for black males was 5.4 deaths/100,000 persons, and for white males, 3.2 deaths/100,000 persons.

FIGURE 1. Rate of death from unintentional poisonings* per 100,000 persons — United States, 1980–1986



*ICD-9 codes: drugs (E850–E858), other solids and liquids (E860–E866), gases and vapors (E867–E869).

TABLE 1. Number of deaths associated with unintentional poisonings, by type of poisoning* and year — United States, 1980–1986

Year	Type of unintentional poisoning			Total
	Drugs	Other solids & liquids	Gases & vapors	
1980	2492	597	1242	4331
1981	2668	575	1280	4523
1982	2862	612	1259	4733
1983	2866	516	1251	4633
1984	3266	542	1103	4911
1985	3612	479	1079	5170
1986	4187	544	1009	5740

*ICD-9 codes corresponding to type of unintentional poisoning: drugs (E850–E858), other solids and liquids (E860–E866), gases and vapors (E867–E869).

Unintentional Poisoning — Continued

TABLE 2. Number of deaths from unintentional drug poisonings, by type of drug — United States, 1986

Type of drug	Deaths	ICD-9 code(s)
Opiates and related narcotics	930	E850.0
Local anesthetics including cocaine	624	E855.2
Nonnarcotic analgesics	349	E850.1–E850.9
Cardiovascular drugs	263	E858.3
Other psychotropic drugs	222	E851–E853, E854.1–E854.3
Antidepressants	154	E854.0
Antibiotics and other anti-infectives	69	E856, E857
Other drugs acting on the central and autonomic nervous systems	61	E855.0–E855.1, E855.3–E855.9
Other specified drugs	822	E858.0–E858.2, E858.4–E858.8
Unspecified drugs	693	E858.9
All	4187	E850–E858

TABLE 3. Unintentional poisoning deaths* and mortality rates per 100,000 population, by decedents' sex and age — United States, 1980–1986

Sex & age group (yrs)	1980		1982		1984		1986	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male								
0–4	63	0.8	57	0.6	60	0.7	51	0.6
5–9	13	0.2	10	0.1	10	0.1	14	0.2
10–19	217	1.1	161	0.8	145	0.8	175	1.0
20–29	930	4.5	1052	5.0	1002	4.7	1077	5.1
30–39	609	3.9	846	5.0	1074	5.9	1448	7.4
40–49	346	3.1	363	3.2	382	3.1	535	4.2
50–59	305	2.8	288	2.6	290	2.7	287	2.7
≥60	404	2.7	447	2.8	456	2.8	513	3.0
Total[†]	2890	2.6	3224	2.9	3419	3.0	4105	3.5
Age-adjusted[‡]		2.7		2.8		2.9		3.3
Female								
0–4	42	0.5	47	0.6	38	0.4	42	0.5
5–9	10	0.1	11	0.1	12	0.2	10	0.1
10–19	105	0.5	82	0.4	73	0.4	74	0.4
20–29	292	1.4	292	1.4	318	1.5	304	1.4
30–39	219	1.4	254	1.5	290	1.6	380	1.9
40–49	171	1.5	205	1.7	183	1.4	207	1.5
50–59	205	1.7	206	1.7	181	1.5	153	1.3
≥60	397	1.9	410	1.9	395	1.8	464	2.0
Total[†]	1441	1.2	1507	1.3	1490	1.2	1635	1.3
Age-adjusted[‡]		1.2		1.2		1.2		1.2

*ICD-9 codes corresponding to unintentional poisonings are E850–E869.

[†]Includes decedents with unknown ages.[‡]Standardized to the 1980 U.S. census population.

Unintentional Poisoning - Continued

The highest mortality rates of unintentional poisonings for both blacks and whites were for young adult men (20-39 years of age). Men in this age group accounted for 40% of all unintentional poisoning deaths and 46% of all unintentional drug poisoning deaths during 1980-1986. In 1986, among young adult men, unintentional drug poisonings were responsible for 2065 deaths or 5.1 deaths/100,000 persons, an 85% increase from 1980.

In 1986, the leading causes of fatal unintentional drug poisonings for young adult men were opiates and related narcotics (619 deaths) and local anesthetics including cocaine (436 deaths). By comparison, in 1980, among young adult men, 213 deaths resulted from poisoning by opiates and related narcotics, and 73 deaths, from poisoning by local anesthetics including cocaine. In 1980 and 1986, additional deaths occurred among young adult men from unintentional poisonings by drug combinations, and an unknown number of these deaths involved opiates or cocaine.[†]

The mortality rate for unintentional poisonings among children <15 years of age was 0.3 deaths/100,000 persons in 1986, a 10% decrease from 1980. In 1986, 147 such deaths occurred among children <15 years of age, including 62 deaths from gases and vapors and 54 from drugs.

Reported by: Biometrics Br and Program Development and Implementation Br, Div of Injury Epidemiology and Control, Center for Environmental Health and Injury Control, CDC.

Editorial Note: Unintentional poisoning mortality is predominantly a problem of young adults, particularly men 20-39 years of age. NCHS data indicate that the misuse of drugs, primarily opiates and related narcotics and cocaine, was responsible for a substantial increase in such deaths among men in this age group from 1980 through 1986. The impact of drug use on mortality is only partially conveyed by enumeration of unintentional poisoning deaths (2). The mortality rate for young adult men rose during 1980-1986 for deaths attributed to drug dependence, nondependent drug abuse, and poisoning by drugs in which the intentions of the decedent are undetermined. For suicide by drugs, the mortality rate in young adult men remained nearly constant (1.6 deaths/100,000 persons in 1986) (NCHS, unpublished data).

The National Institute on Drug Abuse (NIDA) has reported increases in morbidity and mortality associated with nonmedical use of both heroin/morphine and cocaine during 1985-1987 (3). Through its Drug Abuse Warning Network (DAWN), NIDA monitors emergency departments and medical examiners' offices in selected locations for drug-related emergency visits and deaths. In 1987, cocaine was the most frequently reported drug involved in emergency visits, and heroin/morphine and cocaine each were involved in more than one third of deaths reported to DAWN. According to DAWN data for 1987, persons 20-39 years of age accounted for 70% of all drug-abuse emergency visits and 65% of all drug-abuse deaths (4).

Reducing unintentional poisoning mortality among young adults requires prevention programs and treatment efforts that focus on the use of illicit drugs. Although medical complications of illicit drug use often emerge early in adulthood, initiation of drug use during adolescence is an important risk factor for later hazardous use. This suggests that deterring or even delaying initiation of drug use among adolescents is an appropriate goal of prevention (5). However, the recent increase in unintentional drug poisoning deaths among young adults underscores the need for drug education and treatment that focus on illicit drug users who are 20-39 years of age.

[†]The ICD-9 code for unintentional poisoning by drug combinations is E858.8.

*Unintentional Poisoning — Continued**References*

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*Perspectives in Disease Prevention
and Health Promotion***State-to-State Variation in Screening Mammograms
for Women 50 Years of Age and Older —
Behavioral Risk Factor Surveillance System, 1987**

The National Cancer Institute and the American Cancer Society (ACS) recommend that women ≥ 50 years old have an annual screening mammogram and that women aged 40-49 years have a mammogram every 1-2 years (1,2). Based on data from the 1987 Behavioral Risk Factor Surveillance System (BRFSS), the percentages of women ≥ 50 years old who had had a screening mammogram in the preceding 12 months were estimated by state for the 33 participating states.

During 1987, all women who were interviewed for the BRFSS were asked a series of questions about mammograms. The percentage of women who reported having had a screening mammogram increased substantially during 1987 (3). To assess whether all states participated equally in the movement toward increased use of screening mammograms, the quarterly trend in the percentage of women screened during 1987 was determined by state of residence.

In the BRFSS, each participating health department administers monthly random digit-dialed telephone interviews to persons ≥ 18 years old (4). Questionnaires are standardized to allow comparisons of results among states. Of the contacts made with eligible respondents, the median response rate for the 33 participating states was 83%.

The questions about mammography addressed knowledge of, experience with, and reasons for mammography. Since mammograms administered because of a breast problem or a personal history of breast cancer were not considered screening mammograms, women who had mammograms for these reasons were excluded from this analysis.

Screening Mammograms — Continued

Each woman was also asked about visits to a physician for routine preventive care. Because most mammograms are done in the context of routine preventive care provided by a physician, the results presented are limited to women who had seen a physician for a routine examination during the year preceding the interview. The data were weighted to account for the age and race distribution of women residing in each state and for the respondents' probability of selection. Therefore, the results are representative of the total population of women ≥ 50 years old who reside in the 33 states surveyed.

Estimates of the percentages of women screened varied threefold, from 15% in Indiana to 46% in New Hampshire (median 30%). The 33 states were divided into terciles based on the percentage of women who reported having had a screening mammogram in the last year (Table 1).

When estimates of the percentages of women screened were examined by quarter of interview and tercile of the interviewee's state of residence, states in the third (lowest) tercile had the smallest absolute and relative increase in the percentage of women screened, whereas states in the first and second terciles of screening prevalences had greater increases in the percentages of women who reported being screened (Figure 1, Table 2). Thus, in 1987, the states in the third tercile appeared to be falling behind the states in the first and second terciles.

Reported by: The following state BRFSS coordinators: R Strickland, Alabama; T Hughes, Arizona; L Parker, California; M Rivo, District of Columbia; S Hoecherl, Florida; JD Smith, Georgia; E Tash, Hawaii; J Mitten, Idaho; B Steiner, Illinois; S Joseph, Indiana; K Bramblett, Kentucky; R Schwartz, Maine; A Weinstein, Maryland; L Koumijian Yandel, Massachusetts; N Salem, Minnesota; N Hudson, Missouri; R Moon, Montana; R Thurber, Nebraska; K Zaso, New Hampshire; L Pendley, New Mexico; H Bzduch, New York; C Washington, North Carolina; B Lee, North Dakota; E Capwell, Ohio; J Cataldo, Rhode Island; D Lackland, South Carolina; L Post, South Dakota; D Riding, Tennessee; J Fellows, Texas; C Chakley, Utah; K Tollestrup, Washington; R Anderson, West Virginia; R Miller, Wisconsin. Office of Surveillance and Analysis, Center for Chronic Disease Prevention and Health Promotion, CDC.

TABLE 1. Percentage of women aged ≥ 50 years who saw a physician for a routine examination and had a screening mammogram in the last year, by state — Behavioral Risk Factor Surveillance System, 1987

First tercile		Second tercile		Third tercile	
State	%	State	%	State	%
New Hampshire	46	Alabama	31	Maryland	28
District of Columbia	39	Maine	31	Idaho	27
Massachusetts	37	North Carolina	31	South Carolina	26
Wisconsin	36	South Dakota	30	Kentucky	25
California	36	Illinois	30	Tennessee	24
Minnesota	36	Montana	30	Missouri	23
Florida	36	Hawaii	30	New Mexico	23
Washington	35	Georgia	30	Ohio	21
Utah	32	Arizona	29	Nebraska	20
Rhode Island	32	New York	29	West Virginia	19
North Dakota	32	Texas	29	Indiana	15

Screening Mammograms - Continued

Editorial Note: Explanations for the wide state-to-state variation in the percentage of women ≥ 50 years old who reported having had a screening mammogram in the last year may reflect several factors, including differences in physician practices concerning preventive care, the proportions of women who have insurance coverage for screening mammograms, the socioeconomic status of the populations of the states surveyed, the impact of media events during 1987 (3), and state programs' efforts to increase public awareness about screening for breast cancer and use of specific campaigns to promote mammography. For example, in 1987, the Rhode Island Department of Health implemented a broad-based effort to promote the use of screening mammograms (5). In the District of Columbia, with funding from ACS and the cooperation of the Commission of Public Health and several local hospitals, a free cancer screening and mammogram campaign was conducted during 1986. Subsequently, six hospitals and radiology centers now offer screening mammograms for $\leq \$50.00$; two offer screening for only \$25.00 (6).

The increases in the percentages of women screened during 1987 are encouraging. Based on the quarterly trends, however, states in the lowest tercile also had the smallest increases in screening activity. Continued use of the BRFSS to monitor these

FIGURE 1. Trends in screening mammograms for women ≥ 50 years of age, by tercile of states, 1987

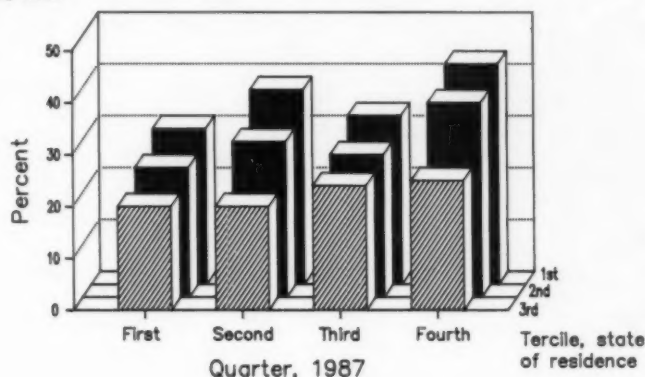


TABLE 2. Quarterly trends in the percentage of women aged ≥ 50 years who had a screening mammogram in the last year, by tercile of state of residence - Behavioral Risk Factor Surveillance System, 1987

Tercile of states	Percentage screened, by quarter (Q) of interview				Percentage increase	
	Q1 (n=1996)	Q2 (n=2100)	Q3 (n=2149)	Q4 (n=2155)	Absolute (Q4-Q1)	Relative ((Q4-Q1)/Q1)
First	30	38	33	43	13	43
Second	24	30	27	38	14	58
Third	20	20	24	25	5	25
All states	24	30	28	35	11	46

Screening Mammograms - Continued

trends may help identify programs of state health agencies that successfully promote the use of screening mammograms, and knowledge about their programs can then be used to promote screening mammograms on a broader scale.

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TABLE I. Summary - cases of specified notifiable diseases, United States

Disease	10th Week Ending			Cumulative, 10th Week Ending		
	Mar. 11, 1989	Mar. 12, 1988	Median 1984-1988	Mar. 11, 1989	Mar. 12, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	212	U*	198	5,725	5,882	2,106
Septic meningitis	96	95	80	783	790	823
Encephalitis: Primary (arthropod-borne & unspc)	10	15	13	101	139	148
Post-infectious	-	-	1	14	13	13
Gonorrhea: Civilian	12,150	12,442	15,316	125,831	132,641	156,799
Military	103	165	358	1,949	2,409	3,294
Hepatitis: Type A	750	497	460	6,418	4,576	4,407
Type B	392	413	530	3,670	3,719	4,525
Non A, Non B	51	49	74	430	447	592
Unspecified	50	56	86	509	402	814
Legionellosis	18	13	13	166	158	134
Leprosy	-	7	7	24	25	44
Malaria	16	12	14	185	128	128
Measles: Total†	244	64	71	1,007	382	443
Indigenous	238	53	57	957	349	367
Imported	6	11	9	50	33	52
Meningococcal infections	72	75	83	623	704	657
Mumps	116	185	98	994	985	696
Pertussis	28	94	39	325	386	346
Rubella (German measles)	2	3	8	40	45	51
Syphilis (Primary & Secondary): Civilian	755	835	535	7,596	6,908	5,477
Military	11	15	3	59	50	46
Toxic Shock syndrome	4	5	6	56	55	55
Tuberculosis	367	381	460	3,218	3,265	3,381
Tularemia	1	1	2	10	19	16
Typhoid Fever	10	7	7	59	64	45
Typhus fever, tick-borne (RMSF)	1	1	1	19	14	10
Rabies, animal	66	77	77	685	557	757

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1988
Anthrax	-	Leptospirosis	22
Botulism: Foodborne (Upstate N.Y. 3, Calif. 1)	6	Plague	-
Infant	2	Poliomyelitis, Paralytic	-
Other	2	Psittacosis (N.C. 1, Fla. 1, Upstate N.Y. 1, Calif. 1)	17
Brucellosis	5	Rabies, human	-
Cholera	-	Tetanus	8
Congenital rubella syndrome	1	Trichinosis (Mass. 1)	2
Congenital syphilis, ages <1 year	-		
Diphtheria	-		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.

†Six of the 244 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending March 11, 1989 and March 12, 1988 (10th Week)

Reporting Area	AIDS	Aseptic Meningi- tis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel- losis	Leprosy
			Primary	Post-in- fectious	A	B	NA,NB	Unspeci- fied				
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1988	Cum. 1988	Cum. 1988	
UNITED STATES	5,725	783	101	14	125,831	132,641	6,418	3,670	430	509	166	24
NEW ENGLAND	274	35	3	-	3,504	3,965	134	232	26	19	13	2
Maine	18	1	1	-	57	96	4	11	3	-	2	-
N.H.	7	1	-	-	39	69	25	16	5	1	-	-
Vt.	2	-	-	-	17	36	3	5	2	-	-	-
Mass.	131	14	1	-	1,386	1,334	49	146	10	15	9	2
R.I.	16	12	-	-	304	335	1	23	2	1	2	-
Conn.	100	7	1	-	1,701	2,095	52	31	4	2	-	-
MID. ATLANTIC	1,530	117	10	1	18,699	19,288	951	586	42	51	46	1
Upstate N.Y.	189	37	6	1	3,058	2,315	232	145	14	2	16	-
N.Y. City	732	20	1	-	8,250	8,350	66	147	9	38	1	-
N.J.	467	-	3	-	2,818	3,108	104	96	11	5	4	-
Pa.	142	60	-	-	4,573	5,515	547	198	8	6	25	1
E.N. CENTRAL	594	112	35	-	22,115	22,108	336	435	41	15	45	-
Ohio	95	29	11	-	5,915	5,122	80	120	6	1	26	-
Ind.	140	36	9	-	1,420	1,978	12	74	1	1	10	-
Ill.	234	4	2	-	7,206	6,256	130	55	3	7	-	-
Mich.	97	38	10	-	8,428	7,019	87	141	21	6	5	-
Wis.	28	5	3	-	1,146	1,733	27	45	10	-	4	-
W.N. CENTRAL	147	27	3	1	5,300	5,156	137	88	12	3	5	-
Minn.	32	4	-	1	556	685	11	24	1	2	2	-
Iowa	19	7	2	-	454	363	16	11	4	-	1	-
Mo.	81	7	-	-	3,196	2,910	63	38	2	1	-	-
N. Dak.	1	2	-	-	21	40	1	3	2	-	-	-
S. Dak.	3	-	1	-	48	110	-	3	3	-	-	-
Nebr.	2	2	-	-	307	316	27	4	-	-	2	-
Kans.	9	5	-	-	718	712	19	5	-	-	-	-
S. ATLANTIC	1,309	172	14	3	35,164	35,797	479	778	59	85	22	-
Del.	25	5	-	-	518	540	15	33	-	1	3	-
Md.	181	16	3	-	3,263	3,685	111	145	11	12	8	-
D.C.	80	3	-	-	2,292	2,348	-	1	1	-	-	-
Va.	135	37	5	-	3,151	2,643	31	60	10	44	1	-
W. Va.	8	2	2	-	285	298	6	18	1	1	-	-
N.C.	103	25	1	1	5,295	5,572	93	220	25	-	7	-
S.C.	56	6	-	-	3,300	2,490	7	89	-	3	-	-
Ge.	216	13	-	-	6,693	6,987	86	75	3	4	1	-
Fla.	505	66	3	2	10,367	11,234	130	135	8	20	2	-
E.S. CENTRAL	136	80	9	1	10,472	10,087	57	271	39	1	5	-
Ky.	26	21	2	1	954	873	25	69	14	-	1	-
Tenn.	44	10	-	-	3,475	3,133	13	142	9	-	3	-
Ala.	41	40	7	-	3,195	3,592	12	54	15	1	1	-
Miss.	25	9	-	-	2,848	2,489	7	6	1	-	-	-
W.S. CENTRAL	478	38	7	-	13,982	15,613	634	254	25	111	7	5
Ark.	18	3	-	-	1,434	1,328	29	10	1	-	-	-
La.	85	3	1	-	2,861	3,759	44	30	2	-	-	-
Okla.	-	7	3	-	1,290	1,310	93	39	7	5	6	-
Tex.	375	25	3	-	8,368	9,216	468	175	15	108	1	5
MOUNTAIN	199	30	4	-	2,583	2,789	1,069	239	49	50	10	1
Mont.	-	-	-	-	44	76	11	14	1	-	2	1
Idaho	2	-	-	-	42	72	51	19	3	2	-	-
Wyo.	5	-	-	-	28	41	6	1	-	-	-	-
Colo.	63	7	1	-	488	721	144	35	16	25	1	-
N. Mex.	11	4	-	-	205	282	107	45	8	1	-	-
Ariz.	48	14	2	-	983	890	594	76	9	18	5	-
Utah	15	4	1	-	100	130	69	15	7	3	2	-
Nev.	55	1	-	-	633	577	87	34	5	1	-	-
PACIFIC	1,058	172	16	8	14,012	17,838	2,621	789	137	174	13	15
Wash.	104	-	-	-	1,087	1,365	528	112	29	9	1	-
Oreg.	47	-	-	-	535	600	445	13	1	-	-	-
Calif.	904	160	14	8	12,098	15,446	1,395	600	92	162	12	13
Alaska	2	-	2	-	203	237	222	10	3	2	-	-
Hawaii	1	12	-	-	89	190	31	1	-	-	-	2
Guam	-	-	-	-	-	30	-	-	-	-	-	-
P.R.	295	27	1	-	176	321	13	55	4	4	-	3
V.I.	15	-	-	-	111	68	-	3	-	-	-	-
Amer. Samoa	-	-	-	-	-	12	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	13	-	-	-	-	-	-

N: Not notifiable

U: Unavailable

C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending March 11, 1989 and March 12, 1988 (10th Week)

Reporting Area	Malaria	Measles (Rubella)					Meningo- coccal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
		Cum. 1989	1988	Cum. 1989	1988	Cum. 1988		Cum. 1989	1988	Cum. 1989	1988	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	185	238	957	6	50	382	623	116	994	28	325	386	2	40	45
NEW ENGLAND	13	3	18	-	5	1	50	-	8	-	12	50	-	-	-
Maine	-	-	-	-	-	-	8	-	-	-	4	11	-	-	-
N.H.	1	-	-	-	-	-	9	-	6	-	5	16	-	-	-
Vt.	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
Mass.	9	-	-	-	3	1	17	-	1	-	1	16	-	-	-
R.I.	2	1	14	-	2	-	1	-	-	-	2	-	-	-	-
Conn.	1	2	2	-	-	-	12	-	1	-	-	7	-	-	-
MID. ATLANTIC	25	2	44	4	20	81	65	4	41	1	30	14	-	2	1
Update N.Y.	8	-	3	41	6	-	26	2	12	-	12	6	-	1	-
N.Y. City	11	2	6	-	13	8	15	-	-	-	-	-	-	1	-
N.J.	3	-	28	-	1	-	7	-	11	-	14	2	-	-	1
Pa.	3	-	9	-	-	73	17	2	18	1	4	6	-	-	-
E.N. CENTRAL	11	13	76	-	2	20	70	24	101	2	17	42	2	4	20
Ohio	4	-	44	-	1	-	38	-	8	-	1	8	-	-	-
Ind.	1	-	-	-	-	-	6	7	10	2	6	15	-	-	-
Ill.	3	13	32	-	-	9	9	14	38	-	-	3	2	3	16
Mich.	1	-	-	-	-	11	11	3	37	-	4	7	-	-	4
Wis.	2	-	-	-	1	-	6	-	8	-	6	9	-	1	-
W.N. CENTRAL	3	-	62	-	1	-	13	2	218	-	7	29	-	-	-
Minn.	2	-	-	-	-	-	4	-	-	-	-	3	-	-	-
Iowa	-	-	-	-	-	-	-	-	7	-	6	13	-	-	-
Mo.	1	-	60	-	-	-	1	2	31	-	-	3	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-
S. Dak.	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-
Nebr.	-	-	-	-	-	-	5	-	1	-	-	-	-	-	-
Kans.	-	-	2	-	1	-	1	-	177	-	1	2	-	-	-
S. ATLANTIC	37	2	89	1	4	78	102	6	134	3	24	36	-	-	-
Del.	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Md.	10	-	3	11	2	2	20	-	59	-	2	6	-	-	-
D.C.	3	-	-	-	2	-	6	-	29	-	-	-	-	-	-
Va.	4	-	-	-	-	22	10	4	30	-	3	2	-	-	-
W. Va.	1	-	-	-	-	2	2	-	3	-	1	-	-	-	-
N.C.	9	2	86	-	1	15	15	-	6	-	10	16	-	-	-
S.C.	-	-	-	-	-	-	9	1	4	-	-	-	-	-	-
Ge.	3	-	-	-	-	-	14	1	1	3	4	7	-	-	-
Fla.	6	-	-	-	-	51	28	-	2	-	4	3	-	-	-
E.S. CENTRAL	3	-	2	-	-	2	24	7	50	4	19	8	-	-	-
Ky.	-	-	1	-	-	-	15	-	9	-	-	-	-	-	-
Tenn.	-	-	-	-	-	-	-	-	13	-	5	6	-	-	-
Ala.	2	-	1	-	-	-	7	1	4	4	14	-	-	-	-
Miss.	1	-	-	-	-	2	2	N	N	-	-	2	-	-	-
W.S. CENTRAL	6	173	433	-	9	8	82	53	318	-	4	11	-	5	1
Ark.	-	-	-	-	2	-	1	3	40	-	1	2	-	-	1
La.	-	-	-	-	-	-	9	-	92	-	-	2	-	-	-
Okla.	1	5	15	-	-	8	5	-	58	-	3	7	-	-	-
Tex.	5	168	418	-	7	-	37	50	128	-	-	-	-	5	-
MOUNTAIN	10	-	13	-	3	109	17	7	33	11	159	127	-	1	2
Mont.	-	-	12	-	1	-	1	-	1	-	-	-	-	-	-
Idaho	2	-	-	-	1	-	-	-	2	2	10	115	-	-	-
Wyo.	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Colo.	1	-	-	-	1	109	6	-	3	-	6	2	-	-	1
N. Mex.	1	-	-	-	-	-	1	N	N	1	2	-	-	-	-
Ariz.	2	-	1	-	-	-	8	6	24	6	137	1	-	-	-
Utah	-	-	-	-	-	-	1	1	1	2	3	7	-	-	-
Nev.	3	-	-	-	-	-	-	-	2	-	1	1	-	1	1
PACIFIC	77	46	222	1	6	83	230	13	96	7	53	69	-	28	21
Wash.	1	-	-	-	1	-	17	-	9	3	8	11	-	-	-
Oreg.	2	-	-	-	-	1	15	N	N	1	1	-	-	-	-
Calif.	73	45	221	11	2	80	196	13	81	3	44	37	-	28	18
Alaska	1	-	-	-	-	-	2	-	-	-	-	2	-	-	-
Hawaii	-	-	1	-	3	2	-	-	5	-	-	19	-	-	3
Guam	-	U	-	U	-	1	-	U	-	U	-	-	U	-	1
P.R.	-	15	87	-	-	23	2	-	1	-	2	1	1	2	-
V.I.	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Amer. Samoa	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

^aFor measles only, imported cases includes both out-of-state and international importations.N: Not notifiable U: Unavailable ¹International ²Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending March 11, 1989 and March 12, 1988 (10th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula- nia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	7,596	6,908	56	3,218	3,265	10	59	19	685
NEW ENGLAND	302	206	1	71	55	-	9	-	1
Maine	-	2	-	1	2	-	-	-	-
N.H.	-	2	-	4	-	-	-	-	-
Vt.	-	-	-	1	-	-	-	-	-
Mass.	103	76	-	29	31	-	4	-	-
R.I.	9	7	-	14	7	-	4	-	-
Conn.	190	119	-	22	15	-	1	-	1
MID. ATLANTIC	1,495	1,317	11	639	715	1	11	3	95
Upstate N.Y.	121	78	1	19	122	-	1	1	-
N.Y. City	807	868	1	439	347	-	9	-	-
N.J.	270	145	4	79	113	-	-	-	-
Pa.	297	206	5	102	133	1	1	2	95
E.N. CENTRAL	293	217	10	393	386	1	4	-	9
Ohio	21	18	6	69	78	-	-	-	-
Ind.	11	17	3	26	32	-	1	-	-
Ill.	145	110	-	160	160	-	1	-	2
Mich.	111	66	1	118	94	-	2	-	1
Wis.	5	6	-	14	22	1	-	-	6
W.N. CENTRAL	67	32	11	84	85	2	2	1	64
Minn.	6	3	3	22	16	-	-	-	27
Iowa	11	3	3	12	9	-	2	1	-
Mo.	32	17	1	25	34	2	-	-	3
N. Dak.	-	1	-	2	2	-	-	-	5
S. Dak.	-	-	1	6	11	-	-	-	20
Nebr.	10	4	3	5	4	-	-	-	6
Kans.	8	4	-	12	9	-	-	-	3
S. ATLANTIC	2,864	2,419	4	688	708	1	5	11	239
Del.	34	34	-	4	7	-	-	-	2
Md.	155	116	-	57	56	-	-	1	46
D.C.	171	108	-	40	34	-	2	-	1
Va.	115	76	-	66	87	1	-	-	58
W. Va.	3	1	-	17	17	-	-	-	17
N.C.	185	164	4	62	40	-	2	10	-
S.C.	141	111	-	77	79	-	-	-	38
Ge.	623	376	-	75	112	-	-	-	39
Fla.	1,457	1,433	-	290	276	-	1	-	38
E.S. CENTRAL	464	405	1	257	259	1	1	2	56
Ky.	13	12	-	72	83	1	1	2	29
Tenn.	151	182	-	58	48	-	-	-	9
Ala.	182	131	1	96	86	-	-	-	18
Miss.	118	100	-	29	42	-	-	-	-
W.S. CENTRAL	1,017	738	2	342	341	1	4	1	109
Ark.	88	22	-	42	33	-	-	-	10
La.	212	127	1	50	50	-	1	-	-
Okla.	14	34	1	21	39	1	-	1	9
Tex.	703	555	-	229	219	-	3	-	90
MOUNTAIN	155	129	3	82	56	1	-	1	24
Mont.	-	2	-	4	-	-	-	-	14
Idaho	-	-	1	3	-	-	-	-	-
Wyo.	1	-	-	-	-	-	-	-	1
Colo.	8	24	-	-	12	1	-	1	-
N. Mex.	4	13	1	14	15	-	-	-	6
Ariz.	39	28	1	47	18	-	-	-	2
Utah	5	6	-	-	-	-	-	-	-
Nev.	98	56	-	14	11	-	-	-	1
PACIFIC	839	1,445	13	662	660	2	23	-	88
Wash.	27	45	-	37	34	-	-	-	-
Oreg.	51	51	-	22	25	-	-	-	-
Calif.	856	1,342	12	565	560	2	23	-	47
Alaska	1	1	-	8	8	-	-	-	41
Hawaii	4	6	1	30	33	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	83	106	-	37	33	-	-	-	8
V.I.	1	1	-	-	2	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	-	-	-
C.N.M.I.	-	1	-	-	2	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending
March 11, 1989 (10th Week)

Reporting Area	All Causes, By Age (Years)						P&I**	Total	Reporting Area	All Causes, By Age (Years)						P&I**	Total
	All Ages	>85	45-64	25-44	1-24	<1				All Ages	>85	45-64	25-44	1-24	<1		
NEW ENGLAND	745	524	133	58	15	15	69		S. ATLANTIC	1,469	926	292	152	49	49	77	
Boston, Mass.	207	131	43	19	7	7	35		Atlanta, Ga.	156	81	42	19	6	6	6	
Bridgeport, Conn.	37	29	5	2	1	-	2		Baltimore, Md.	345	235	61	28	13	8	16	
Cambridge, Mass.	30	22	5	2	1	-	1		Charlotte, N.C.	64	41	15	5	2	1	7	
Fall River, Mass.	25	22	3	-	-	-	2		Jacksonville, Fla.	131	81	25	19	4	2	6	
Hartford, Conn.	73	42	15	12	2	2	3		Miami, Fla.	147	73	33	30	3	8	-	
Lowell, Mass.	25	16	6	2	1	-	2		Norfolk, Va.	58	38	9	4	4	2	5	
Lynn, Mass.	12	11	-	1	-	-	1		Richmond, Va.	99	66	19	4	2	8	15	
New Bedford, Mass.	31	27	4	-	-	-	12		Savannah, Ga.	54	39	11	3	-	1	3	
New Haven, Conn.	58	41	7	5	2	1	12		St. Petersburg, Fla.	88	74	12	-	1	1	7	
Providence, R.I.	57	41	13	2	-	1	1		Tampa, Fla.	74	50	16	3	4	1	5	
Somerville, Mass.	6	3	1	2	-	-	-		Washington, D.C.	241	144	45	35	7	10	7	
Springfield, Mass.	67	49	13	2	1	2	2		Wilmington, Del.	12	4	4	2	1	1	-	
Waterbury, Conn.	38	30	6	3	-	-	2		E.S. CENTRAL	929	615	205	59	20	30	78	
Worcester, Mass.	80	60	12	6	-	2	4		Birmingham, Ala.	142	89	25	9	7	12	7	
MID. ATLANTIC	2,901	1,929	557	288	60	59	213		Chattanooga, Tenn.	57	39	17	1	-	-	7	
Albany, N.Y.	62	42	10	3	3	4	5		Knoxville, Tenn.	81	57	17	4	2	1	11	
Allentown, Pa.	27	23	3	1	-	-	2		Louisville, Ky.	128	90	26	9	2	1	12	
Buffalo, N.Y.	106	69	25	8	1	1	11		Memphis, Tenn.	263	171	59	20	8	5	21	
Camden, N.J.	51	39	3	3	3	3	3		Mobile, Ala.	60	42	11	2	1	4	5	
Elizabeth, N.J.	48	30	12	4	1	1	8		Montgomery, Ala.	61	40	14	4	-	3	-	
Erie, Pa.	52	44	4	1	-	-	3		Nashville, Tenn.	137	87	36	10	-	4	15	
Jersey City, N.J.	71	56	8	5	-	2	3		W.S. CENTRAL	1,807	1,124	384	176	58	65	80	
N.Y. City, N.Y.	1,525	947	313	200	40	25	85		Austin, Tex.	58	39	7	8	2	2	2	
Newark, N.J.	62	34	11	12	1	3	4		Baton Rouge, La.	35	22	9	2	2	-	4	
Paterson, N.J.	30	15	7	5	-	3	3		Corpus Christi, Tex.	48	37	10	1	-	-	1	
Philadelphia, Pa.	400	265	90	25	10	10	22		Dallas, Tex.	203	112	54	20	5	12	11	
Pittsburgh, Pa.	57	49	5	1	1	1	4		El Paso, Tex.	56	39	9	4	1	3	7	
Reading, Pa.	29	24	3	1	1	-	5		Fort Worth, Tex.	91	66	9	5	2	9	6	
Rochester, N.Y.	130	94	22	9	2	3	18		Houston, Tex.	734	436	169	89	24	16	18	
Schenectady, N.Y.	29	26	3	2	-	-	4		Little Rock, Ark.	84	53	17	5	4	5	6	
Schenectady, N.Y.	32	23	7	2	-	-	4		New Orleans, La.	188	117	37	25	8	3	-	
Syracuse, N.Y.	91	68	16	5	1	1	8		San Antonio, Tex.	195	122	42	11	10	10	13	
Trenton, N.J.	43	32	9	1	-	1	6		Shreveport, La.	31	24	6	-	-	1	4	
Utica, N.Y.	19	16	2	-	1	-	1		Tulsa, Okla.	84	57	15	6	2	4	8	
Yonkers, N.Y.	38	33	4	1	-	-	8		MOUNTAIN	765	468	157	51	38	20	37	
E.N. CENTRAL	2,341	1,573	480	160	57	71	129		Albuquerque, N. Mex.	90	49	13	7	19	1	4	
Akron, Ohio	44	32	8	-	1	3	-		Colo. Springs, Colo.	46	32	8	3	3	-	8	
Canton, Ohio	46	34	9	2	1	-	6		Denver, Colo.	126	84	26	9	-	7	3	
Chicago, Ill.	564	362	125	45	10	22	16		Las Vegas, Nev.	120	67	38	9	4	2	9	
Cincinnati, Ohio	157	113	23	13	6	2	20		Ogden, Utah	10	7	3	-	-	-	2	
Cleveland, Ohio	152	91	46	6	4	5	2		Phoenix, Ariz.	165	112	26	12	7	8	3	
Columbus, Ohio	116	73	26	4	7	4	1		Pueblo, Colo.	31	25	6	-	-	-	1	
Dayton, Ohio	109	76	27	5	-	1	12		Salt Lake City, Utah	47	32	8	3	2	2	4	
Detroit, Mich.	280	165	51	39	13	12	11		Tucson, Ariz.	130	90	29	8	3	-	3	
Evansville, Ind.	53	43	9	1	-	3	3		PACIFIC	2,306	1,607	371	198	64	57	211	
Fort Wayne, Ind.	72	50	14	4	1	3	3		Berkeley, Calif.	21	19	2	-	-	-	-	
Gary, Ind.	20	11	3	4	2	-	1		Fresno, Calif.	93	65	15	8	-	-	5	2
Grand Rapids, Mich.	62	39	11	7	2	3	9		Glendale, Calif.	26	21	4	1	-	-	2	
Indianapolis, Ind.	167	116	32	11	1	7	4		Honolulu, Hawaii	80	58	14	4	3	1	13	
Madison, Wis.	30	24	1	3	1	1	5		Long Beach, Calif.	121	89	18	8	3	3	21	
Milwaukee, Wis.	159	122	28	5	2	2	11		Los Angeles, Calif.	617	422	104	53	24	7	47	
Peoria, Ill.	41	25	12	2	-	2	5		Oakland, Calif.	116	69	23	11	5	8	5	
Rockford, Ill.	32	21	10	1	-	-	4		Pasadena, Calif.	35	25	5	4	1	-	4	
South Bend, Ind.	58	44	11	1	-	-	8		Portland, Oreg.	160	119	23	6	5	7	11	
Toledo, Ohio	103	72	20	5	4	2	8		Sacramento, Calif.	154	108	26	9	5	7	26	
Youngstown, Ohio	76	60	12	3	-	1	3		San Diego, Calif.	204	145	28	23	3	5	24	
W.N. CENTRAL	673	646	144	43	17	23	64		San Francisco, Calif.	217	133	38	40	3	3	15	
Des Moines, Iowa	67	47	15	3	-	2	6		San Jose, Calif.	188	131	33	14	8	2	25	
Duluth, Minn.	27	19	2	4	2	-	2		Seattle, Wash.	155	110	25	13	3	4	2	
Kansas City, Kans.	34	21	6	4	-	3	2		Spokane, Wash.	62	52	6	3	-	1	9	
Kansas City, Mo.	147	106	23	8	4	6	16		Tacoma, Wash.	57	41	7	2	1	4	5	
Lincoln, Nebr.	26	20	6	-	-	-	1		TOTAL	14,136**	9,442	2,723	1,185	384	389	958	
Minneapolis, Minn.	234	171	43	12	4	4	21										
Omaha, Nebr.	104	82	15	3	1	3	10										
St. Louis, Mo.	135	102	18	7	3	5	2										
St. Paul, Minn.	74	59	11	1	3	-	3										
Wichita, Kans.	25	19	5	1	-	-	-										

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

Current Trends

Update: Acquired Immunodeficiency Syndrome Associated with Intravenous-Drug Use — United States, 1988

In 1988, health departments of the 50 states and the District of Columbia reported 9752 cases, and U.S. territories reported 995 cases, of acquired immunodeficiency syndrome (AIDS) in intravenous-drug users (IVDUs), their sex partners, and children born to mothers who were IVDUs or sex partners of IVDUs. These IVDU-associated AIDS cases represented 33.3% of the 32,311 AIDS cases reported in 1988 and included 5789 (53.9%) male heterosexual IVDUs, 1742 (16.2%) female IVDUs, 2055 (19.1%) male homosexual/bisexual IVDUs, 227 (2.1%) men whose heterosexual partners were IVDUs, 620 (5.8%) women whose heterosexual partners were IVDUs, 231 (2.1%) children whose mothers were IVDUs, and 83 (0.8%) children whose mothers were sex partners of IVDUs. The 847 persons who were heterosexual partners of IVDUs accounted for 55.0% of the total 1541 cases associated with presumed heterosexual transmission of human immunodeficiency virus (HIV) [379 [54.6%] of the 694 other such cases occurred in persons born in countries where heterosexual contact is the predominant mode of HIV transmission). The 314 children whose mothers were IVDUs or sex partners of IVDUs accounted for 70.2% of the 447 cases associated with perinatal HIV transmission reported in 1988.

In 1988, 4.3 cases of IVDU-associated AIDS per 100,000 population were reported by the 50 states, District of Columbia, and U.S. territories combined. Rates for IVDU-associated AIDS varied widely by area; rates in Puerto Rico, New Jersey, New York, and the District of Columbia were >10/100,000 population; in 22 states, rates were <1/100,000 population (Figure 1). Rates were higher in the Northeast census

FIGURE 1. Reported rates of IVDU-associated AIDS cases per 100,000 population — United States, 1988



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region than in other regions (Table 1), and 54.5% of IVDU-associated cases were reported from the Northeast*, which represents 19.7% of the population of the United States and its territories. In 1988, IVDU-associated cases accounted for 50.7% of all AIDS cases reported from the Northeast; 23.5%, from the South; 19.8%, from the Midwest; and 15.8%, from the West. Excluding states and territories with <10 reported cases in 1988, three states and one territory had more cases in heterosexual IVDUs than in homosexual/bisexual men who were not IVDUs (Table 2).

The rate of IVDU-associated AIDS continues to be higher for blacks and Hispanics than for whites (Table 1). Except for the West, where rates for whites and Hispanics were similar, this difference by race/ethnicity was observed for all regions of the country and was greatest in the Northeast (Table 1). IVDU-associated AIDS cases represented 16.3% of all AIDS cases in whites, 52.7% in blacks, 55.5% in Hispanics, 6.3% in Asians/Pacific Islanders, and 29.0% in American Indians/Alaskan Natives.

Although homosexual/bisexual male IVDUs represented approximately one fifth of all IVDU-associated cases, this proportion varied widely by region of the country. Male homosexual/bisexual IVDUs constituted 7.7% of IVDU-associated cases in the Northeast, 26.3% in the Midwest, 29.1% in the South, and 56.8% in the West. Similarities between homosexual/bisexual male IVDUs and other men with AIDS varied by demographic and disease characteristics (Table 3).

In August 1987, the CDC surveillance case definition for AIDS was expanded to include additional AIDS-indicator diseases (e.g., HIV dementia, wasting syndrome,

*The Northeast census region includes states in the New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) and Middle Atlantic (New Jersey, New York, Pennsylvania) districts; the Midwest includes the East North Central (Illinois, Indiana, Michigan, Ohio, Wisconsin) and West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota) districts; the South includes the South Atlantic (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia), East South Central (Alabama, Kentucky, Mississippi, Tennessee), and West South Central (Arkansas, Louisiana, Oklahoma, Texas) districts; and the West includes the Mountain (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming) and Pacific (Alaska, California, Hawaii, Oregon, Washington) districts. Territories are not included in tabulations by region.

TABLE 1. Number and rate per 100,000 population of AIDS cases associated with IV-drug use, by census region and race/ethnicity — United States, 1988

Race/ethnicity	No. cases (rate)					Total*
	Northeast	Midwest	South	West		
White†	1203 (2.9)	217 (0.4)	687 (1.2)	719 (2.2)		2826 (1.6)
Black†	2929 (62.0)	294 (5.5)	1318 (9.5)	277 (12.5)		4818 (18.4)
Hispanic	1699 (65.2)	69 (5.4)	135 (3.0)	159 (2.5)		2062 (14.1)
Asian/Pacific Islander	6 (1.1)	0 (0.0)	0 (0.0)	6 (0.3)		12 (0.3)
American Indian/ Alaskan Native	1 (1.2)	2 (0.8)	0 (0.0)	6 (0.8)		9 (0.6)
Unspecified	23	0	0	2		25
Total	5861 (11.9)	582 (1.0)	2140 (2.8)	1169 (2.7)		9752 (4.3)

*Total cases and total rates exclude territories. Rates are based on the 1980 U.S. census. Total cases and rates in text and Figure 1 include territories and are based on 1988 intercensal population estimates.

†Non-Hispanic.

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TABLE 2. States/territories where number of reported AIDS cases in heterosexual IVDUs exceeds cases in non-IVDU homosexual men — United States, 1988

State/territory	Reported AIDS cases	
	Male & female heterosexual IVDUs	Homosexual/bisexual male non-IVDUs
Connecticut	164	156
New Jersey	1359	603
New York	2920	2727
Puerto Rico	757	189

TABLE 3. Characteristics of homosexual/bisexual and heterosexual men with IVDU-associated AIDS and homosexual/bisexual male non-IVDUs with AIDS — United States and U.S. territories, 1988

Characteristic	Men with AIDS		
	Homosexual/bisexual IVDUs (%) (N = 2055)	Heterosexual IVDUs (%) (N = 5789)	Homosexual/bisexual non-IVDUs (%) (N = 17,993)
Race/ethnicity			
White*	53.6	19.6	71.6
Black*	27.4	46.2	16.8
Hispanic	18.7	33.9	10.5
Asian/Pacific Islander	0.1	0.0	0.7
American Indian/ Alaskan Native	0.1	0.1	0.1
Not specified	0.2	0.3	0.3
Total	100.0	100.0	100.0
Mean age (yrs) (SD)	34.4 (7.4)	36.4 (7.3)	36.9 (9.2)
Opportunistic disease			
<i>Pneumocystis carinii</i> pneumonia†	49.8	48.5	58.1
Kaposi's sarcoma†	12.9	2.5	15.9
Region			
Northeast	22.0	63.1	25.0
Midwest	7.4	5.0	11.2
South	30.3	15.3	31.6
West	32.3	5.9	31.2
Territories	8.0	10.7	1.1
Total	100.0	100.0	100.0

*Non-Hispanic.

†Categories are not mutually exclusive and include presumptive and confirmed diagnoses.

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extrapulmonary tuberculosis) and to accept presumptive diagnoses of some other indicator diseases (e.g., *Pneumocystis carinii* pneumonia, Kaposi's sarcoma, esophageal candidiasis) when tests for HIV infection are positive (1). Of IVDU-associated AIDS cases reported in 1988, 4682 (43.6%) met the case definition solely on the basis of criteria added in the 1987 revision of the case definition. Of these persons, 2616 (55.9%) had a presumptively diagnosed indicator disease, 1572 (33.6%) had wasting syndrome, and 501 (10.7%) had HIV dementia (diagnostic groups not mutually exclusive). In contrast, diagnoses of 23.3% of all other AIDS cases meeting the case definition were based on the additional 1987 revision criteria. Of all 1988 AIDS cases based on the new criteria, 48.2% were IVDU-associated.

FIGURE 2. Number of AIDS cases, by quarter of report - Northeast region, 1981-1988

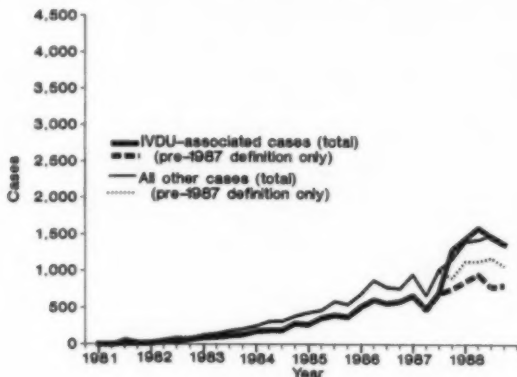
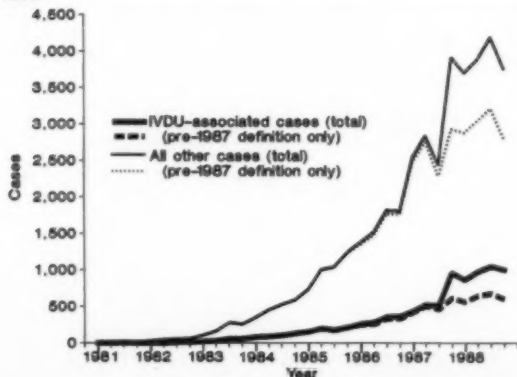


FIGURE 3. Number of AIDS cases, by quarter of report - Midwest, South, and West regions, 1981-1988



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Throughout the course of the HIV epidemic, the proportion of IVDU-associated AIDS cases has been higher in the Northeast than in other regions (Figures 2 and 3). The 1987 revision of the AIDS surveillance definition was associated with an increase in reported cases beginning in the last quarter of 1987, particularly for IVDU-associated cases in the Northeast, where total IVDU-associated cases surpassed the number of all other AIDS cases.

Reported by: Local, state, and territorial health departments. AIDS Program, Center for Infectious Diseases, CDC.

Editorial Note: AIDS cases occurring in association with IV-drug use involve not only IVDUs themselves but also their sex partners and children born to IVDUs or their sex partners. IVDU-associated AIDS accounts for most AIDS cases in heterosexual men, women, and children. Compared with the incidence in whites, the higher incidence of IVDU-associated AIDS in blacks and Hispanics contributes to their overall higher incidence of AIDS (2). This is most evident in the Northeast, where 1988 case rates for IVDU-associated AIDS were dramatically higher in blacks and Hispanics than in whites and where IVDU-associated AIDS cases exceeded all other AIDS cases.

Approximately one fifth of IVDU-associated AIDS cases are in homosexual/bisexual men. These cases may reflect HIV transmission through individual drug use or sexual activity.

The 1987 revision of the AIDS case definition appears to have increased the number of IVDU-associated cases reported in 1988. The new criteria may have resulted in the identification of some persons earlier in the course of their disease (e.g., persons who eventually would progress to meet the previous definition) or of persons who never would have met the previous definition. The latter is particularly important for IVDUs who may use health-care services for HIV-related illness later or less often than other persons with AIDS and may be more likely to have presumptive rather than definitive diagnoses of their HIV-related diseases. In addition, some states collected surveillance data on cases that met the new criteria before the criteria were implemented and later reported those cases. For these reasons, a temporary surge in reported cases may be expected until trends reach a new equilibrium. A longer period of observation and improved understanding of the course of disease in persons with cases diagnosed under new definition criteria are needed to assess the full impact of the revision on trends.

In addition to illnesses included in the AIDS case definition, there is increasing recognition of an even broader spectrum of severe HIV-associated disease, particularly among IVDUs. For example, studies in New York City indicate that deaths due to infections such as pneumonia, endocarditis, and pulmonary tuberculosis occur more frequently among IVDUs with HIV infection than among IVDUs without HIV infection and that the increased number of pneumonia-related deaths among IVDUs has paralleled the HIV epidemic (3,4). In addition, pneumonia-associated deaths have recently increased among young adults in other cities that have a high incidence of AIDS among IVDUs (5).

Rates of IVDU-associated AIDS presented here are based on the total population, not on numbers of drug users. Consequently, these rates reflect the combined effect of both the prevalence of IV-drug use and the prevalence of HIV infection among IVDUs in different groups or geographic areas. Geographic variations in the rate of IVDU-associated AIDS cases also reflect differences in HIV seroprevalence rates among IVDUs; for IVDUs enrolled in drug-treatment programs, HIV seroprevalence

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rates have ranged from 50%–60% in areas such as New York City, northern New Jersey, and Puerto Rico to <5% in most other areas (6). The observation that the number of cases in IVDUs exceeds those in homosexual men in several Northeastern states and Puerto Rico highlights the magnitude of the problem of IVDU-associated AIDS. In addition, the lower HIV seroprevalence rates in most other parts of the country, where IVDU-associated cases constitute a smaller proportion of the HIV epidemic, emphasize the need to prevent extension of the epidemic of IVDU-associated HIV infection and AIDS.

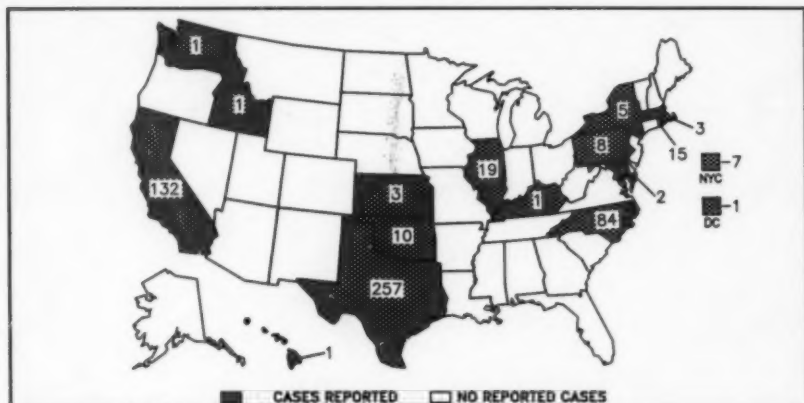
The changing epidemiology of IV-drug use challenges efforts to prevent and control HIV infection and AIDS among IVDUs. Data on IVDUs suggest that most persons who use IV heroin began use in the mid-1960s to mid-1970s (7); many of the current AIDS cases among IVDUs may reflect the HIV epidemic among this cohort of heroin users. Increasingly, cocaine and other drugs are being used intravenously (8). Prevention of HIV infection in IV-cocaine users is further complicated because those persons engage in more frequent injection and needle sharing than do other IVDUs and because, unlike methadone for treatment of heroin dependence, there is no specific therapy for treating cocaine dependence (9,10). Controlling the epidemic of HIV infections and AIDS among IVDUs will require intense efforts to prevent and reduce IV-drug use and measures to prevent HIV transmission among IVDUs. In addition, the association between use of illicit drugs and recent increases in syphilis and between non-IV use of cocaine (e.g., "crack") and sexual activity links illicit drug use to an increased potential for sexual HIV transmission (11,12).

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FIGURE I. Reported measles cases — United States, Weeks 6–9, 1989



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